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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,637	11/21/2003	Gi Hyeong Do	9988.074.00-US	9123
30827	7590	11/01/2006	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			PATEL, RITA RAMESH	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	

1746

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/717,637	<b>Applicant(s)</b> DO ET AL.	
	<b>Examiner</b> Rita R. Patel	<b>Art Unit</b> 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/3/05</u>  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of group I, claims 1-7 in the reply filed on 8/10/06 is acknowledged.

### ***Drawings***

The drawings received 11/21/03 are acceptable for examination purposes.

### ***Priority***

Acknowledgement has been made of applicant's claim for priority under 35 U.S.C. 119. This application claims the benefit of Korean Application No. 10-2002-0073895 filed on November 26, 2002.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho et al. (US Pub. No. 2002/0050011) herein referred to as "Cho".

Cho teaches an apparatus for sensing a laundry amount in a washing machine which is capable of improving the degree of sensing of the laundry amount to heighten an efficiency of a washing machine by controlling a current and detecting a speed to reduce an error of sensing the amount of the laundry (page 1, paragraph [0002]). As shown in Figure 4 of Cho, there is a motor 109, a microcomputer 108, and a speed detector 111 for receiving the position detect signal from the rotor position detector 110 and detecting therefrom a driving speed of the motor 109. Speed detector 111 in combination with rotor position detector 110 reads on applicant's claim for a pulse sensor. Moreover, laundry amount sensor compares the speed received from the speed detector 111 with a previously stored reference speed (page 3, paragraph [0051]).

Cho teaches the claimed invention except fails to explicitly claim a washing machine and timer. However, Cho does state this present invention is used in combination with a washing machine for sensing laundry therein. One of ordinary skill in the art at the time of the invention would have at once envisaged the invention of Cho in a washing machine. In claim 1 of Cho, it is recited "an apparatus for sensing a laundry amount in a washing machine". Similarly, Cho teaches that the time taken to accelerate the motor to a certain speed is measured to sense the amount of laundry (page 1, paragraph [0016]); one of ordinary skill in the art at the time of the invention would have at once envisaged that a timer is used to measure time in Cho. Measuring time is an integral function in Cho's invention and timers are commonly known apparatuses in the art used to measure time.

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Re claims 4-5, Cho fails to explicitly claim a predetermined position of rotation whereby the timer measures, however it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize this feature of Cho to achieve the most efficient washing functions, and thus utilizing energy effectively. Also, by optimization of the position the timer measures, it improves determining the amount of laundry therein such that wash patterns can be performed accordingly. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RRP



**MICHAEL BARR**  
SUPERVISORY PATENT EXAMINER